

1/7

| | | |
|------|---|------|
| -231 | GCAGCGGCACGGCAGCAGCGGCAACAAGTGCCGGACTAGCAGAGCCAAGCCGGAGCAGTC | -172 |
| -171 | CCTGCCGCCGACACCGCCGGGCGCCCGTCCGGGGCGCCGCGCATGGAGCGTGAGCTGCG | -112 |
| -111 | GCGGTCGCCGGGGCTGAGCCGCGCGGAGCGCCGGGACGTGGATGTGGCCGCGATCTCCCG | -52 |
| -51 | CCCTTGCCCCCGCCCCGCGGAGCTGGAGCTGCTCCCGACAAGATATGAGAAATGAGTGT | 8 |
| -16 | <u>M S V</u> | 3 |
| 9 | TGGACGTGGAAGAATAAAGTTGTTGGGTATCCTGATGATGGCAAATGTCTTCATTTATTT | 68 |
| 4 | <u>G R R R I K L L G I L M M A N V F I Y F</u> | 23 |
| 69 | TATTATGGAAGTCTCCAAAAGCAGTAGCCAAGAAAAAATGGAAAAGGGGAAGTAATAAT | 128 |
| 24 | <u>I M E V S K S S S Q E K N G K G E V I I</u> | 43 |
| 129 | ACCCAAAGAGAAGTTCTGGAAGATATCTACCCCTCCCGAGGCATACTGGAACCGAGAGCA | 188 |
| 44 | <u>P K E K F W K I S T P P E A Y W N R E Q</u> | 63 |
| 189 | AGAGAAGCTGAACCGGCAGTACAACCCCATCTGAGCATGCTGACCAACCAGACGGGGGA | 248 |
| 64 | <u>E K L N R Q Y N P I L S M L T N Q T G E</u> | 83 |
| 249 | GGCGGGCAGGCTCTCCAATATAAGCCATCTGAACCTACTGCGAACCTGACCTGAGGGTCAC | 308 |
| 84 | <u>A G R L S N I S H L N Y C E P D L R V T</u> | 103 |
| 309 | GTCGGTGGTTACGGGTTTTAAACAACCTGCCGGACAGATTTAAAGACTTTCTGCTGTATTT | 368 |
| 104 | <u>S V V T G F N N L P D R F K D F L L Y L</u> | 123 |
| 369 | GAGATGCCGCAATTATCTACTGCTTATAGATCAGCCGATAAGTGTGCAAAGAAACCTTT | 428 |
| 124 | <u>R C R N Y S L L I D Q P D K C A K K P F</u> | 143 |
| 429 | CTTGTTGCTGGCGATTAAGTCCCTCACTCCACATTTTGCCAGAAGGCAAGCAATCCGGGA | 488 |
| 144 | <u>L L L A I K S L T P H F A R R Q A I R E</u> | 163 |
| 489 | ATCCTGGGGCCAAGAAAGCAACGCAGGGAACCAAAACGGTGGTGCGAGTCTTCCTGCTGGG | 548 |
| 164 | <u>S W G Q E S N A G N Q T V V R V F L L G</u> | 183 |
| 549 | CCAGACACCCCCAGAGGACAACCACCCCGACCTTTTCAGATATGCTGAAATTTGAGAGTGA | 608 |
| 184 | <u>Q T P P E D N H P D L S D M L K F E S E</u> | 203 |

FIG.1A

2/7

| | | | | |
|------|--|------------------------------------|------|------|
| 609 | 850 | 870 | 890 | 668 |
| 204 | GAAGCACCAAGACATTCTTATGTGGA | ACTACAGAGACACTTTCTTCAACTTGTCTCTGAA | | 223 |
| | K H Q D I L M W N Y R D T F F N L S L K | | | |
| 669 | 910 | 930 | 950 | 728 |
| 224 | GGAAGTGCTGTTTCTCAGGTGGGTAAGTACTTCTGCCCAGACACTGAGTTTGT | TTTCAA | | 243 |
| | E V L F L R W V S T S C P D T E F V F K | | | |
| 729 | 970 | 990 | 1010 | 788 |
| 244 | GGGCGATGACGATGTTTTGTGAACACCCATCACATCCTGAATTACTTGAATAGTTTATC | | | 263 |
| | G D D D V F V N T H H I L N Y L N S L S | | | |
| 789 | 1030 | 1050 | 1070 | 848 |
| 264 | CAAGACCAAAGCCAAAGATCTCTTCATAGGTGATGTGATCCACAATGCTGGACCTCATCG | | | 283 |
| | K T K A K D L F I G D V I H N A G P H R | | | |
| 849 | 1090 | 1110 | 1130 | 908 |
| 284 | GGATAAGAAGCTGAAGTACTACATCCCAGAAGTTGTTTACTCTGGCCTCTACCCACCCTA | | | 303 |
| | D K K L K Y Y I P E V V Y S G L Y P P Y | | | |
| 909 | 1150 | 1170 | 1190 | 968 |
| 304 | TGCAGGGGGAGGGGGTTCCTCTACTCCGGCCACCTGGCCCTGAGGCTGTACCATATCAC | | | 323 |
| | A G G G G F L Y S G H L A L R L Y H I T | | | |
| 969 | 1210 | 1230 | 1250 | 1028 |
| 324 | TGACCAGGTCCATCTCTACCCATTGATGACGTTTATACTGGAATGTGCCTTCAGAACT | | | 343 |
| | D Q V H L Y P I D D V Y T G M C L Q K L | | | |
| 1029 | 1270 | 1290 | 1310 | 1088 |
| 344 | CGGCCTCGTTCCAGAGAAACACAAAGGCTTCAGGACATTTGATATCGAGGAGAAAAACAA | | | 363 |
| | G L V P E K H K G F R T F D I E E K N K | | | |
| 1089 | 1330 | 1350 | 1370 | 1148 |
| 364 | AAATAACATCTGCTCCTATGTAGATCTGATGTTAGTACATAGTAGAAAACCTCAAGAGAT | | | 383 |
| | N N I C S Y V D L M L V H S R K P Q E M | | | |
| 1149 | 1390 | 1410 | 1430 | 1208 |
| 384 | GATTGATATTTGGTCTCAGTTGCAGAGTGCTCATTTAAAATGCTAAAATAGATACAACT | | | 397 |
| | I D I W S Q L Q S A H L K C * | | | |
| 1209 | 1450 | 1470 | 1490 | 1268 |
| | CAATTTTGCATAGAAAGGTGTATTTTGAATAGTTCCCATGTTGTGTTCTCACATTAGAGT | | | |
| 1269 | 1510 | 1530 | 1550 | 1328 |
| | AATTTCTATATTAAACCATGAAAATTGCCTTTATGAGTGATACCCATTTGAGGGCCTCTA | | | |
| 1329 | 1570 | 1590 | 1610 | 1388 |
| | AACCCTTCAATTTGGTACTCACGTGAAGAGGGAAAGCGGAAGATGGTAATTTTTTTTAT | | | |
| 1389 | 1630 | 1650 | 1670 | 1448 |
| | GGATGATATGGCAGGATGATTGGTTCTGATCTTACCGCTAGTGGTCATTTTTAAAAAC | | | |
| 1449 | 1690 | 1710 | 1730 | 1508 |
| | TTGTACCCTCTTATCTGAAATCCTGTTTCTGGAATTTGGCCATTTTAAGTGATTTGTTT | | | |

FIG.1B

3/7

| | | | | |
|------|--|------|------|------|
| 1509 | 1750 GCCCTCTTCTATAATATTCCTACTTCCCATAATAATGACTGATTTATTTGTAATTCAGGT | 1770 | 1790 | 1568 |
| 1569 | 1810 ATTTATAAACCTATTGGCTACAAAGACTTTTGTTAAACATTATCCAGTGGTTTTTCGTGAAA | 1830 | 1850 | 1628 |
| 1629 | 1870 TGGAATTATGTTTATTTTATGGGATTTGGGTAAATTTTAAATTGTCTAGAAAACTGAAA | 1890 | 1910 | 1688 |
| 1689 | 1930 TTTCAGTTGTCAGTTGTGGAATTCAGTTTTTCAATTGTGGAAATTTCTGCCACCCCAAC | 1950 | 1970 | 1748 |
| 1749 | 1990 AGTATTTTTGTGTGTTAATTAATTTTGC AAAATGAGAATCATGGTGTGACACTCATCTAA | 2010 | 2030 | 1808 |
| 1809 | 2050 TTTATCTTGTGTGATGTTATGGTCATAATAAGGAGAAAGAGGGTTTAATTTTCTTGTA | 2070 | 2090 | 1868 |
| 1869 | 2110 TTTGGTTTCCTGGTGGTATCATAGTGTAATTTTAGTATTTGAAAATCAGTGTGATTCCTT | 2130 | 2150 | 1928 |
| 1929 | 2170 AATGGCCAACTGAAGATTGAATTGCCGCTAACCAACCATATCGTGTTAGTGAATTTTCAAT | 2190 | 2210 | 1988 |
| 1989 | 2230 ATGGACCAGGAAGGCATATGTATTTTGAAC TTGAGTGAAAAGGTTGAAGTTACAGACTTT | 2250 | 2270 | 2048 |
| 2049 | 2290 TGCATAGATGGTTTGTCAATTTAAAATTCCAGAA TTATTATTGCCATATTTTCACATGC | 2310 | 2330 | 2108 |
| 2109 | 2350 TGCTTATACAAGATTATTATTGAGTAGTAACTGTTCCCTGTCTATGTAGAAGTGCCTGTG | 2370 | 2390 | 2168 |
| 2169 | 2410 TTTTTATTTATTGTTCCAGATCAAAGACCAAAACATTTTCTTAAATATCTCTTATGTAAT | 2430 | 2450 | 2228 |
| 2229 | 2470 ATTTTATTTGTATACAGTGTGTTGTGATGAAATATTTAACTAGAGCATGATATTTTAAATG | 2490 | 2510 | 2288 |
| 2289 | 2530 TTAAGGTGTAACATATGTTAAATAAAACTGTTATTTTGAATTTTAAAATTTGTTTTTTG | 2550 | 2570 | 2348 |
| 2349 | 2590 GGGGTATGAACTACTAGAGTTTAAAATTCTGCCAACTATTACTTATATGTACTATTGTG | 2610 | 2630 | 2408 |
| 2409 | 2650 TAACATACTTTCTTGAAATATTTTGT TTATAGAATTGAAGGTTCTTATCAGATGGGATA | 2670 | 2690 | 2468 |
| 2469 | 2710 CTGGGGATTATAAACAATGGAAATAAAGCCACTGTATTTTAAAA | 2730 | | 2513 |

FIG. 1C

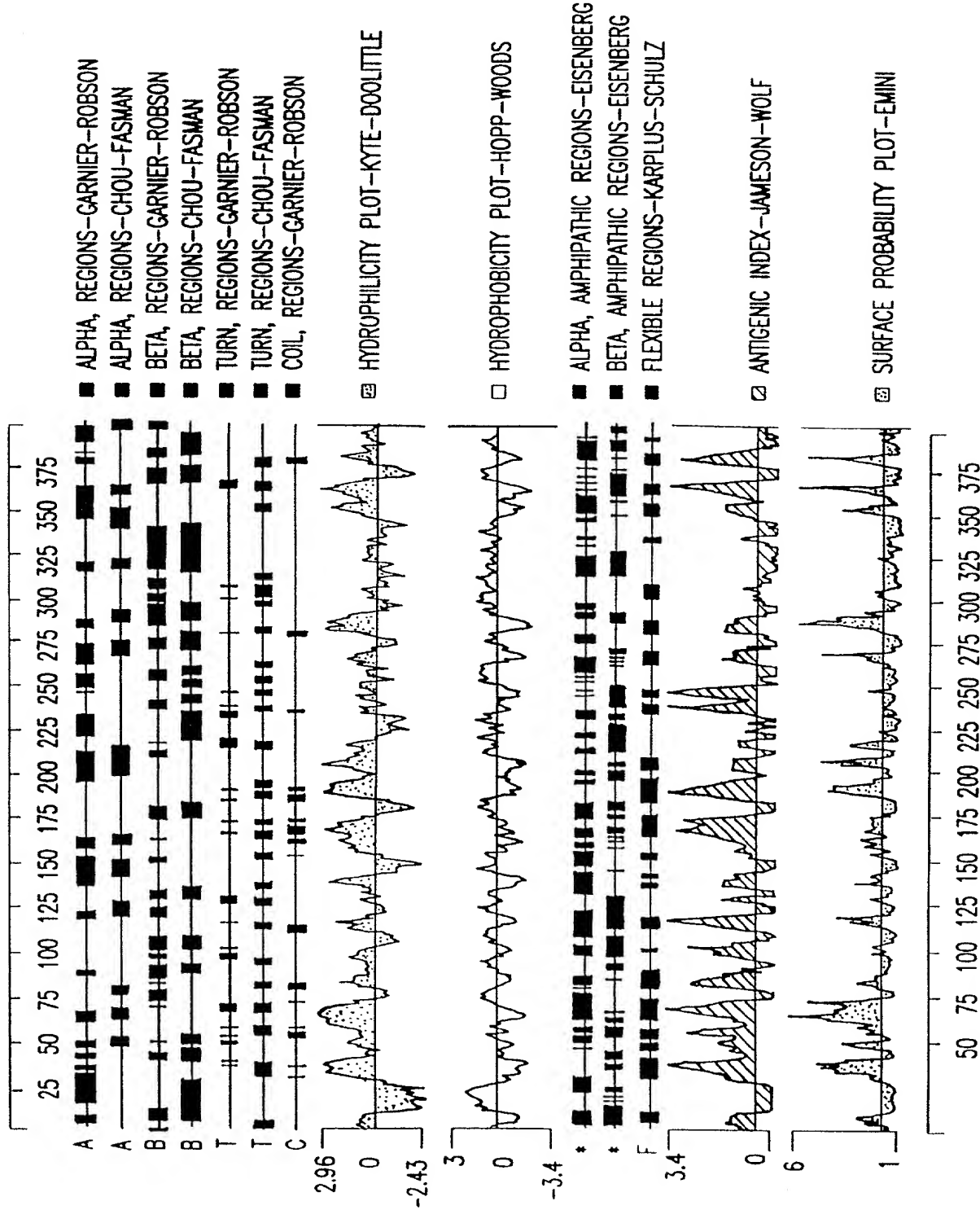
4/7

| | | |
|-----|--|-----|
| 60 | NREQEKLNRQYNPILSMLTNQTGEAGRLSNISHLNYCEPDLRVTSVVTGF | 109 |
| 2 | QSKHRKLLLRCLLVLPIL.LVDYCGLLTHLHLENF.ERHFHYPLNDDTG | 49 |
| 110 | NNLPDRFKDFLLYLRCRNYS..LLIDQPDKCAKKPFLLLAIKSLTPHFAR | 157 |
| 50 | SGSASSGLDKFAYLRVPSFTAEPVDPAR.....LTMLIKSAVGNSRR | 93 |
| 158 | RQAIRESWGQESNAGNQTVVRFLLGQTPPEDNHPDLSDMLKFESEKHQD | 207 |
| 94 | REAIRRTWGYEGRFSDVHLRRVFLGTAEDSEK.....VAWESREHGD | 137 |
| 208 | ILMWNYRDTFFNLSLKEVLFLRWVSTSCPDTFVFKGDDDFVNTHHILN | 257 |
| 138 | ILQADFTDAYFNNTLKTMLGMRWASEQFNRSEFYLFVDDYYVSAKNVLK | 187 |
| 258 | YLNLSLSTKAKDLFIGDVIHNAGPHRDKKLYYIPEVVYS.GLYPPYAGG | 306 |
| 188 | FLGRGRQSHQPELLFAGHVFQTSPLRHKFSKWYVSLEEYPFDRWPPYVTA | 237 |
| 307 | GGFLYSGHLALRLYHITDQVHLYPIDDVYTMCLQKLGLVPEKHKGFRTF | 356 |
| 238 | GAFILSQKALRQLYAASVHLPLFRFDDVYLGIVALKAGISLQHCDDFRFH | 287 |
| 357 | DIEEKNNKNICSYYDLMLVHSRKPQEMIDIWSQLQSAHL | 395 |
| 288 | RPAYKGPDSYSSVIA..SHEFGDPEEMTRVWNECRSANY | 324 |

FIG.2

5/7

FIG.3



6/7

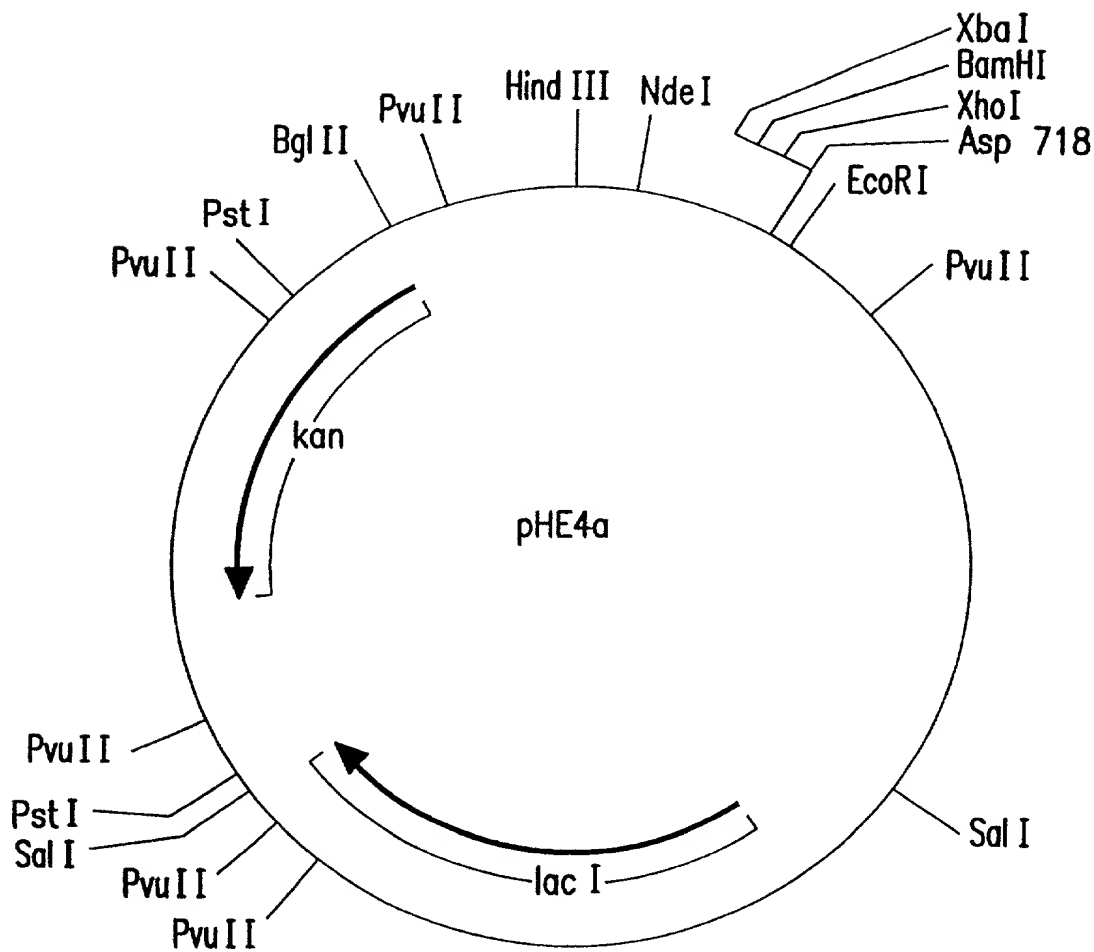


FIG.4

7/7

1 AAGCTT AAAAACTGCAAAAATAGT TTTGACT TGTGAGCGGATAACAAT
-35 Operator 1

50 TAAGATGTACCCAAATTGTGAGCGGATAACAATTTCACACATTAA
-10 Operator 2

S/D

94 ACAGGAGAAATTA CATATG

FIG.5